

## POLLUTION PREVENTION

Tobyhanna Army Depot (TYAD) uses a holistic approach to pollution prevention; systematically eliminate HM use and operations or processes that produce hazardous/solid waste and other emissions; instill the pollution prevention ethic throughout the entire Army community and all mission areas. The depot has developed and implemented strategic environmental management approaches and procedures to minimize all environmental contamination and pollution. The depot also serves as a role model for both the Army and private industry.



One of the two installed denitrification towers at the Sewage Treatment Plant.

1. TYAD has installed a wastewater denitrification system which has significantly decreased the impact of nitrates on the receiving stream, which is classified as a high-quality cold-water fishing stream.
2. TYAD is one of the first DOD installations to receive third party certification for the depot's Environmental Management System (EMS) to the ISO 14001 Environmental Management System Standard. As one of the initial planning steps and as part of a two-year implementation plan, TYAD had an assessment performed to evaluate the relative alignment of the current EMS and the required elements of the ISO 14001 standard. The GAP analysis revealed that our program existing at that time met 80 percent of the requirements and the

remaining 20 percent was a matter of establishing documentation of policies, procedures, and objectives.

3. In August 1998, a water recycling system was installed in the PSCC Rain Room. The system will save approximately 36,000 gallons of potable water per year which equates to \$1,080 per year saved. [Click here for more detailed information.](#)
4. TYAD replaced the chlorine treatment system at the sewage treatment plant with an ultraviolet treatment system. In addition to the environmental benefits, the ultraviolet treatment system will result in a \$142,000 savings over a 15-year period and involves no HM. Replacement of the system occurred three years before National Pollutant Discharge Elimination System permit requirement.
5. TYAD implemented hazardous material review procedures by developing a Hazardous Material Review Board. HM requisitions are reviewed by the members of this board which are the Environmental Management Division, Safety, Industrial Hygiene, and Fire Prevention personnel. This board looks for less hazardous and/or non-hazardous substitutes prior to approval. In addition, each shop has an authorized use list, which is enforced at every issue of material to a shop (comparing the material being issued against what that shop is authorized and denying the issue when it is not authorized).
6. TYAD, utilizing the Hazardous Material Review Board in conjunction with other pollution prevention projects, successfully reduced the use of SARA III reportable chemicals below threshold limits.
7. TYAD installed a microfiltration unit to further reduce heavy metal discharge from the *Industrial Wastewater Treatment Plant* (IWTP). TYAD worked with the U.S. Army Construction Engineering Research Laboratory on the development of this technology. TYAD has partnered with local college's to test P2 technology.
8. TYAD is the primary point of contact for paint processes and backup point of contact for chemical depainting processes as part of the Industrial Operations Command's *Center for Technical Excellence* Program (CTX).
9. TYAD replaced its chromic acid final rinse on the plating shop's zinc phosphate line with a chrome-free alkaline rinse. Implementation has reduced chrome loading at TYAD's IWTP and reduced the potential for chrome exposure for shop employees.
10. TYAD has a very active recycling program. The Recycling Program has reduced the amount of solid waste disposed of in landfills by 34 percent during fiscal year (FY) 02 and 34 percent during FY 03. This conserved the use of approximately 31,031 cubic yards of landfill space and refuse removal cost avoidance amounts to over \$152,829 during the two years.
11. TYAD has reduced recurring HW generation over 80 percent from 1985 to date, based on weight of HW disposed, and over 30 percent based on 1992 generation, with associated savings in disposal cost avoidance.
12. The DoD measure of merit for pesticide usage was to reduce usage by 50% over a ten year period. TYAD has exceeded that goal by reducing pesticide usage by 74%. The new measure of merit is to maintain this level.

13. TYAD is in the process of installing a water chiller system to the air compressor system cooled by water. This conversion will save the depot 24M gallons of water annually.